

Complete Listing of the Claims

29. A method for reducing subterranean aqueous fluid flow into a well drilled through a hydrocarbon-bearing formation, comprising the steps of:

(a) providing a composition comprising water soluble hydrophobically-modified polymers having a linear hydrophilic backbone with hydrophobic side groups along said backbone and functional groups for cross-linking said polymers;

(b) allowing said composition to contact said formation; and

(c) cross-linking said hydrophobically-modified polymers of the composition to form a cross-linked gel selectively reducing said subterranean aqueous fluid flow.

30-33. cancel

34. The method of claim 10, wherein the hydrophilic backbone of the hydrophobically modified polymers comprises poly(acrylic acid), poly(vinylpyridine), hydroxyethylcellulose or poly(ethylene oxide).

35. The method of claim 10, wherein the hydrophobically modified polymers comprise poly(sodium 4-styrenesulphonate) or poly(vinylpyridine).

36. The method of claim 10, wherein the hydrophobically-modified polymers comprise poly(acrylamide).

37. The method of claim 10, wherein the hydrophobically-modified polymers comprise n-nonyl acrylate.

38. The method of claim 10, wherein the hydrophobically-modified polymers comprise N-decylamide.

39-48. cancel